

**- NONCONFIDENTIAL -**

**2012-1170**

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE FEDERAL CIRCUIT**

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**SUPREMA, INC. and MENTALIX, INC.,**  
*Appellants,*

**v.**

**INTERNATIONAL TRADE COMMISSION,**  
*Appellee,*

**and**

**CROSS MATCH TECHNOLOGIES, INC.,**  
*Intervenor.*

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Appeal from the United States International Trade Commission in  
Investigation No. 337-TA-720.

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**BRIEF FOR INTERVENOR**

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### **CERTIFICATE OF INTEREST**

Counsel for Appellant Cross Match Technologies, Inc. certifies the following:

1. The full name of every party or amicus curiae represented by me is:  
  
Cross Match Technologies, Inc.
2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:  
  
None
3. All party corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:  
  
None
4. The names of all law firms and the partners or associates that appeared for the party or amicus curiae now represented by me in the trial court or agency or are expected to appear in this court are:  
  
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Respectfully submitted,

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### **CONFIDENTIAL MATERIAL OMITTED**

The material omitted on pages 4, 6, 9, 11, 22, 24, 26-27, 31, 33-34, and 35, relates to the functionality of Appellants' products, which is confidential business information, subject to a protective order.

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### **STATEMENT OF RELATED CASES**

Intervenor Cross Match Technologies, Inc. (“Cross Match”) filed its petitions for review (Nos. 2012-1026 and 2012-1124) arising out of the same underlying United States International Trade Commission (“Commission”) investigation (No. 337-TA-720).

On February 10, 2010, Cross Match brought suit against Suprema, Inc. (“Suprema”) and Mentalix, Inc. (“Mentalix”) in federal district court in Texas; the case was stayed pending resolution of the Commission investigation. *See Cross Match Technologies, Inc. v. Suprema, Inc. et al.*, No. 6:10-cv-28 (E.D. Tex.).

## **STATEMENT OF ISSUES**

Cross Match believes the issues are properly framed as follows:

1. Whether the Commission's finding of infringement of U.S. Patent No. 7,203,344 ("344 patent") is based on a proper construction of the "shape" and "area" limitations and supported by substantial evidence.
2. Whether the Commission's finding of induced infringement of the '344 patent is supported by substantial evidence and in accordance with the law.
3. Whether the Commission properly found a § 337 violation based on induced infringement.
4. Whether the Commission correctly construed the "optical system" limitation of U.S. Patent No. 5,900,993 ("993 patent") as permitting the use of mirrors between the claimed "lens units."
5. Whether the Commission's finding that Appellants failed to establish, by clear and convincing evidence, that the combination of U.S. Patent No. 3,619,060 ("060 patent") and U.S. Patent No. 5,615,051 ("051 patent") renders the '993 patent invalid due to obviousness is supported by substantial evidence.

## STATEMENT OF THE CASE

Intervenor Cross Match, a global provider of fingerprint acquisition technology, is the sole assignee of the patents-in-suit—the '344 patent and the '993 patent. A45. The '993 patent, entitled “Lens Systems for Use in Fingerprint Detection,” was filed in 1997, and issued in 1999. A246-63. The '344 patent, entitled “Biometric Imaging System and Method,” was filed in 2003, and issued in 2007. A264-301.

Suprema and Mentalix (“Appellants” or “Respondents”) compete with Cross Match in the biometrics and fingerprint scanning industries. Suprema (a Korean company) makes and sells RealScan scanners—fingerprint scanning hardware—bundled with software for using the devices, which are imported into the United States. *See* A37; A40; A211. Suprema’s software (known as its “software development kit” or “SDK”), utilizes Suprema hardware to scan fingerprints, scans an image, and assesses the quality and number of the prints, among other functions. *See, e.g.,* A115-18; A300049; A100755. Suprema’s infringing RealScan 10/10-F products are telecentric optical systems, which include a prism, three lens units, two folding mirrors, and an aperture. A106-20.<sup>1</sup>

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<sup>1</sup> “In a telecentric system, the chief ray (*i.e.*, the center ray) of every light ray bundle is parallel to the axis on the object side, image side, or both.” A40-41.

Mentalix (a Texas company) develops its own biometric identification software (called “FedSubmit”) employing Suprema’s software. Mentalix distributes its software with Suprema’s scanners. A40-41; A101703; A101711-12. FedSubmit operates, in relevant part, by assessing height and width of fingerprints [ CONFIDENTIAL MATERIAL OMITTED ]. A127-32. Suprema and Mentalix collaborate on software development and commercial implementation. A225.

On May 11, 2010, Cross Match filed a complaint with the Commission, alleging, *inter alia*, that importation and sale of Suprema’s RealScan products, used in conjunction with FedSubmit, infringe the ’344 and ’993 patents. *See* A36; A102; A120.<sup>2</sup> On June 11, 2010, the Commission initiated an investigation pursuant to 19 U.S.C. § 1337(a)(1)(B). A36.

The Commission ultimately found, in relevant part, that Suprema induced Mentalix’s direct infringement of claim 19 of the ’344 patent, that certain Suprema scanners directly infringe claims 10, 12, and 15 of the ’993 patent, and that none of the asserted claims is invalid. A236. On October 24, 2011, the Commission issued a limited exclusion order and a cease and desist order. *Id.*

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<sup>2</sup> Two other patents asserted below are not at issue in this appeal.

**A. The '344 Patent**

The only claim of the '344 patent at issue here is claim 19 and the only limitations at issue are (e) and (f). Claim 19 states (A297):

**19.** A method for capturing and processing a fingerprint image, the method comprising:

- (a) scanning one or more fingers;
- (b) capturing data representing a corresponding fingerprint image;
- (c) filtering the fingerprint image;
- (d) binarizing the filtered fingerprint image;
- (e) detecting a fingerprint area based on a concentration of black pixels in the binarized fingerprint image;
- (f) detecting a fingerprint shape based on an arrangement of the concentrated black pixels in an oval-like shape in the binarized fingerprint image; and
- (g) determining whether the detected fingerprint area and shape are of an acceptable quality.

The Administrative Law Judge (“ALJ”) held that the language for “detecting a fingerprint area” (step (e)) and “detecting a fingerprint shape” (step (f)) was plain on its face and required no formal construction. A127-98; A131. With respect to the remaining language of step (f), the ALJ held that “the concentrations of black pixels need only be comprised of oval-like shapes” and that step (f) “does not require a calculation or determination of whether anything is oval-like.” A131; *cf.* A78-94 (construing other claim terms).



The ALJ found that Suprema's RealScan-10/10F and RealScan-D/DF, used in conjunction with Mentalix's FedSubmit software, satisfied both limitations. The ALJ found that FedSubmit determines a fingerprint area and shape based on the placement of a precise bounding box around each fingerprint image, which is a concentration of black pixels arranged in an oval-like shape. A131 |

### CONFIDENTIAL MATERIAL OMITTED

| Because the ALJ also found all other limitations met, the ALJ concluded that the products infringe claim 19. A123-33; A204. The ALJ also held that Respondents failed to meet their burden on invalidity and that claim 19 is not obvious in view of U.S. Patent No. 5,073,949 ("949 patent"). A155-56; A165-68.

The Commission reviewed and affirmed the ALJ's ruling of infringement of claim 19 of the '344 patent, with some elaboration. The Commission found that (a) Mentalix directly infringed claim 19, A220, and (b) Suprema induced infringement because it "[ CONFIDENTIAL MATERIAL OMITTED

] then 'willfully blinded' itself to the infringing nature of Mentalix's activities which it had actively encouraged," A220-21 (citing *Global-Tech Appliances, Inc. v. SEB S.A.*, 131 S. Ct. 2060, 2070-71 (2011)). The Commission

further found that “[t]hese actions result in a finding of a violation of section 337 by both respondents.” A230.

**B. The '993 Patent**

Three asserted '993 patent claims (10, 12, and 15) are at issue in this appeal.

Independent claim 10 provides (A261):

**10.** An optical system having an optical axis, said system forming an image of an object and comprising:

- a) a prism having a first surface for contacting the object and a second surface, said first surface being oriented with respect to the optical axis at an angle greater than the angle of total internal reflection of the surface;
- b) an aperture stop;
- c) a first lens unit having a positive power between the aperture stop and the prism for forming a telecentric entrance pupil;
- d) a second lens unit having a positive power for forming a real image of the object, said second lens unit being on the image side of the first lens unit; and
- e) a third lens unit for correcting the field curvature of the image contributed by the first and second lens units.

Dependent claims 12 and 15 provide (A261):

**12.** The optical system of claim 10 wherein the first lens unit consists of a single lens element....

**15.** The optical system of claim 10 wherein the third lens unit has a negative power.

The ALJ construed various claim terms, A56-78, and found that the accused RealScan-10/10F products meet every limitation, A102-15; A204.<sup>3</sup>

The ALJ gave the claimed phrase “optical system” (found in the preamble of each of the asserted claims) its ordinary meaning—“a collection of optical elements in a specified configuration to act on light.” A62. The ALJ explained that, as the parties agreed, the plain meaning of “optical system” can include both lens and non-lens elements—it “does not preclude the use of non-lens elements, distortion correcting prisms, holographic optical elements, or off-axis optics.” *Id.* Further, the ALJ held that “none of [the specified] elements a) through e) of claim 10 include language limiting the number and type of elements that can be included in the ‘optical system.’” A59.

The ALJ rejected Respondents’ attempt to limit the plain meaning of “optical system” to exclude “non-lens elements” from the so-called “lens system” (a term that does not appear in the claims). A67. Respondents’ specialized construction of “optical system” was based entirely on language in the specification. But, as the ALJ explained, “the specification does not include a clear disavowal of claim scope.” *Id.*

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<sup>3</sup> The other accused products (RealScan-D/DF and RealScan-F) were found non-infringing for reasons not relevant in this appeal. A112-15. The other asserted claims (11, 17, 18) were only asserted against these other accused products. *Id.*

The ALJ applied its construction and found infringement because, as relevant here, the accused products have an “optical system” that includes “a second lens unit having a positive power for forming a real image of the object, said second lens unit being on the image side of the first lens unit” (element 10(d)). A102; A107. As the ALJ explained, [ CONFIDENTIAL MATERIAL OMITTED

] A103-04. Respondents’ only arguments (relevant here) as to these elements hinged on its rejected claim construction—*i.e.*, that the accused products employ non-lens elements and off-axis optics purportedly “disclaimed” in the specification. A102-04; A106-09.

Further, the ALJ (agreeing with Cross Match and the Staff) held that Respondents failed to meet their burden of proving by clear and convincing evidence that the asserted claims are obvious in light of the ’060 patent in combination with the ’051 patent. A152-55. The ALJ applied the flexible approach to obviousness that the Supreme Court set forth in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), A143, and found the asserted claims of the ’993 patent non-obvious for at least three reasons.

First, the ALJ found that the ’060 patent does not disclose element 10(c). A153. As the ALJ explained, “the ’060 patent discloses creating the telecentric condition in a lens 14 on the *illumination side* of the prism and *not* in a lens located *between the prism and the aperture stop* [*i.e.*, on the *image side*] as required” by

element 10(c). A152.<sup>4</sup> Second, the ALJ found that the '051 patent “does not disclose a telecentric lens system” and, thus, the “substitution of the triplet lens system of the '051 patent into the device of the '060 patent” also does not disclose element 10(c). A153. Third, in any event, the ALJ found “nothing in the record to indicate why one of ordinary skill in the art would have substituted [the '051 patent's] lens system *for a camera* into [the '060 patent's] *fingerprint detection device*.” A154.

Accordingly, the ALJ found a violation of § 337 with respect to the '993 patent. A204; A210. The Commission declined to review that ruling, making it the final opinion of the Commission. A24; A210 & n.1.

This Court should affirm the Commission's claim construction, infringement, validity, and § 337 rulings with respect to the '344 and '993 patents because they are supported by substantial evidence and correct as a matter of law.

### **SUMMARY OF ARGUMENT**

1. The Commission's finding of a violation based on infringement of the '344 patent is correct and supported by substantial evidence.

First, the Commission correctly construed and applied claim 19 in finding infringement. As the Commission held, the plain claim language “detecting a fingerprint area” and “detecting a fingerprint shape” does not require locating the

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<sup>4</sup> All emphases added unless otherwise noted.

exact contours of the image or calculating the area and shape to a certain level of precision. Precisely measuring the height and width of a fingerprint image is sufficient. The Commission also correctly held that claim 19 does not require determining *whether* an image is oval-like shaped; it merely requires that the claimed method be used on oval-like shaped concentrations of black pixels. Therefore, substantial evidence supports the Commission's finding that certain accused products, which undisputedly calculate the exact height and width of oval-like shaped fingerprints, infringe claim 19. Moreover, Appellants have waived their challenge to the validity of claim 19 because they raise that argument only in a brief footnote.

Second, substantial evidence supports the Commission's finding that Suprema induced infringement. Appellants misrepresent the Commission's finding that Suprema was willfully blind to the existence of the '344 patent as resting only on inaction. But the record is replete with Suprema's extensive and purposeful efforts to, for example, research [CONFIDENTIAL MATERIAL OMITTED] Cross Match's patents] and [ CONFIDENTIAL MATERIAL OMITTED

] A221. Suprema searched for "potentially relevant patents" using search terms that would have revealed the '344 patent; undisputedly reviewed Cross Match's U.S. Patent No. 7,277,562 ("562 patent"), which incorporates by reference the application that matured into the '344 patent; studied

the '562 patent; and tried to modify its products to steer clear of the '562 patent. Against this backdrop, Suprema failed to obtain an opinion of counsel on its potential infringement exposure, which would have undoubtedly turned up the '344 patent. Applying Supreme Court precedent, the Commission considered the record as a whole and did not improperly rely on “mere inaction” to find willfulness.

Third, the Commission properly found a § 337 violation based on Suprema's inducement of Mentalix's direct infringement. Appellants rely almost exclusively on a subsequently-issued decision, *Certain Electronic Devices with Image Processing Systems, Components Thereof, and Associated Software*, Inv. No. 337-TA-724, Comm'n Op. (Dec. 21, 2011) (“*Certain Electronic Devices*”). However, in that case, unlike here, *there was no finding of induced infringement*. And the Commission repeatedly stressed that the complainant “***might have proved a violation of section 337 if it had proved indirect infringement.***” *Id.* at 18. Thus, that case, as well as prior Commission and Federal Circuit precedent and the statutory text, support the Commission's decision here.

2. The Commission's finding of a violation based on infringement of the '993 patent is correct and supported by substantial evidence.

First, the Commission properly construed the claimed “optical system.” Appellants argue that the claim language should be recast to preclude the use of

any non-lens elements (such as mirrors) anywhere between the recited “lens units.” Based on the claim language and the specification, however, the Commission correctly refused to import such a limitation into the claims, particularly since the part of the specification relied on by Suprema discusses “lens systems,” *not* “lens units,” and the term “lens system” is not recited and is found nowhere in the asserted claims. Thus, the Commission’s finding that the RealScan-10/10F products (which use folding mirrors as part of the optical system) infringe the claims is supported by substantial evidence.

Second, the Commission correctly held that Appellants failed to prove by clear and convincing evidence that the asserted claims of the ’993 patent are obvious. Appellants argue invalidity based on one combination of prior art patents (the ’060 and ’051 patents). But there is substantial evidence to support the Commission’s findings that the ’060 patent does not teach the particular telecentric condition recited in element 10(c) and that there is no reason or motivation to combine the references; and, in any event, the ’051 patent does not teach the “lens units” in elements 10(c) and (e).

The Commission’s rulings on the ’344 and ’993 patents should be affirmed.



## ARGUMENT

### I. LEGAL STANDARDS

#### A. Standard of Review

This Court reviews legal rulings (including claim construction and invalidity) *de novo* and factual findings (including direct and induced infringement, and facts underlying invalidity) for substantial evidence. *Tessera, Inc. v. ITC*, 646 F.3d 1357, 1363 (Fed. Cir. 2011), *cert. denied*, 132 S. Ct. 2707 (2012); *Vizio, Inc. v. ITC*, 605 F.3d 1330, 1342-43 (Fed. Cir. 2010).

Under the substantial evidence standard, this Court “‘must affirm a Commission determination if it is reasonable and supported by the record as a whole, even if some evidence detracts from the Commission’s conclusion,’” *Spansion, Inc. v. ITC*, 629 F.3d 1331, 1344 (Fed. Cir. 2010) (quoting *Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1352 (Fed. Cir. 2006)), *cert. denied*, 132 S. Ct. 758 (2011), and “‘even if it is possible to draw two inconsistent conclusions from evidence in the record,’” *Nippon Steel*, 458 F.3d at 1352 (citation omitted); *see also* 5 U.S.C. § 706(2)(E). The question is “‘not whether [this Court] agree[s] with the Commission’s decision, nor whether [this Court] would have reached the same result’” in the first instance. *Nippon Steel*, 458 F.3d at 1352 (citation omitted).

## B. Claim Construction

Claim construction begins with the language of the claims because the claims “define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted). Claim language is generally given its “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Id.* at 1313. To ascertain its plain meaning, claim language is to be read in light of the intrinsic evidence, including the specification. *Id.* at 1313-14, 1315; *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011). But “[i]f the claim language is clear on its face,” then “consideration of the rest of the intrinsic evidence is restricted to determining if a deviation from the clear language of the claims is specified.” *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001).

Where the plain meaning is clear, it is improper to import claim limitations from the specification unless the patentee “has disavowed or disclaimed scope of coverage, by using words or expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.” *Brookhill-Wilk 1, LLC v. Intuitive Surgical, Inc.*, 334 F.3d 1294, 1299, 1301 (Fed. Cir. 2003); *see, e.g., Epistar Corp. v. ITC*, 566 F.3d 1321, 1335-36 (Fed. Cir. 2009) (specification’s “disparaging”

discussion of prior art not limiting unless it is an “unmistakable disavowal” or “a manifest or express disavowal of the criticized subject matter”). Likewise, the prosecution history cannot limit the meaning of a claim term unless the patentee has made “a clear and unmistakable disavowal of scope during prosecution.” *Purdue Pharma L.P. v. Endo Pharms., Inc.*, 438 F.3d 1123, 1136 (Fed. Cir. 2006); *see also SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1287 (Fed. Cir. 2005). Courts must not use “[a]n ambiguous disclaimer ... to limit a claim term’s ordinary meaning.” *01 Communique Lab., Inc. v. LogMeIn, Inc.*, --- F.3d ---, 2012 WL 3089367, at \*4 (Fed. Cir. July 31, 2012) (citation omitted).

### **C. Non-Obviousness**

Patents are presumed valid, 35 U.S.C. § 282, and a challenger bears the burden of proving by clear and convincing evidence that “the differences between the subject matter ... as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). That inquiry involves consideration of (1) the scope and content of the prior art; (2) the differences between the claims and the prior art; (3) the level of ordinary skill in the art; and (4) any secondary considerations of non-obviousness. *KSR*, 550 U.S. at 406.

## **II. THE COMMISSION PROPERLY FOUND A VIOLATION BASED ON INFRINGEMENT OF THE '344 PATENT**

### **A. The Commission Properly Construed Claim 19 And Its Infringement Finding Is Supported By Substantial Evidence**

Appellants argue that the Commission erred in finding that the RealScan products infringe claim 19 of the '344 patent because the Commission implicitly misconstrued steps (e) and (f). Br. 32-41. Specifically, Appellants contend that: (1) step (e) requires detecting the precise area of an image; (2) step (f) requires detecting all the contours of an image; and (3) step (f) requires determining whether the image is an oval. Appellants are wrong on all three. The Commission's application of its plain language construction of steps (e) and (f) is supported by substantial evidence.

#### **1. Step (e) Does Not Require Detecting A Fingerprint Area With Absolute Precision**

Limitation (e) of claim 19 of the '344 patent requires (A297):

(e) detecting a fingerprint area based on a concentration of black pixels in the binarized fingerprint image ....

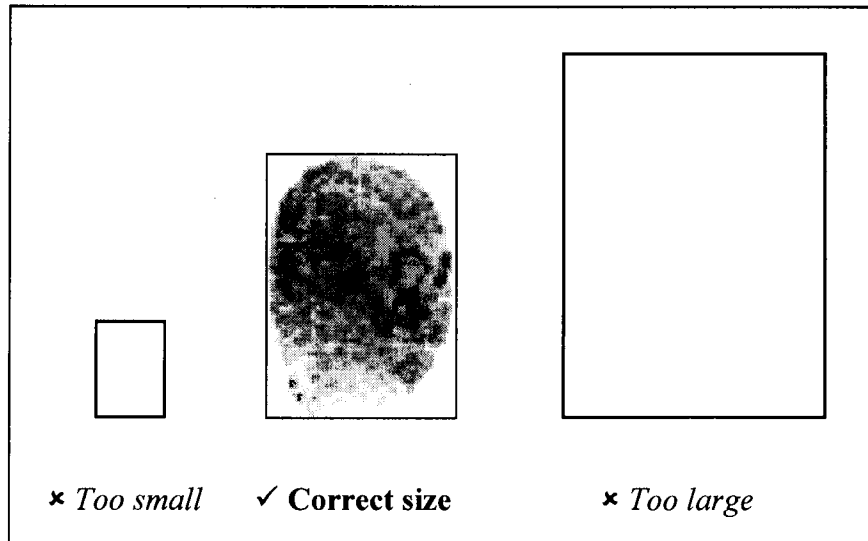
The Commission held that "the plain language" of step (e) "is sufficiently clear that a separate construction is unnecessary" and "[t]he parties had agreed that this claimed phrase need not be construed." A128. But Appellants now argue (at 34) that the Commission misconstrued this limitation when it determined that the accused products "'detect[] a fingerprint area'" by performing a pixel-level analysis of the image, finding the highest concentrations of black pixels,

calculating the height and width of the image, and delineating a perfectly fitting “bounding box” around the fingerprint image. A127-31. Unhappy with this finding, Appellants ask this Court to construe step (e) to apparently be read to require determining the *exact* area of a fingerprint based on some unclaimed contour analysis of the fingerprint. Br. 34-35. Appellants’ argument should be rejected.

The Commission’s “de facto” construction, which recognizes that “detecting a fingerprint area” can be accomplished by bounding the fingerprint image, is correct. The plain language of step (e) simply requires “detecting a fingerprint area.” Nothing in the claim requires detecting the “exact area” based on a contour analysis of a fingerprint image. *See, e.g., U.S. Philips Corp. v. Iwasaki Elec. Co.*, 505 F.3d 1371, 1377 (Fed. Cir. 2007) (refusing to “infer[] any level of precision beyond” that expressly provided in the claim).

The Commission’s finding is not surprising. Measuring the exact height and width of a figure, regardless of its shape, unquestionably provides useful information about the area of that figure. *See, e.g., Gilbert Strang, Calculus* 123-24 (1991) (area of oval equals  $\pi * \frac{1}{2} \text{ height} * \frac{1}{2} \text{ width}$ ). Moreover, with respect to a fingerprint, the height and width of a figure can provide extremely useful area information. For example, as the figures below demonstrate, the size and shape of

the bounding boxes detect the print area, and this detected area can then be used in determining the quality of the fingerprint.



Indeed, step (g) of claim 19 performs this quality determination based on the area detected in step (e). A297 (col.19 ll.36-37) (step (g)) (“determining whether the detected fingerprint area and shape are of an acceptable quality”). And step (g), like step (e), does not require any specific level of precision—it simply determines whether the “area” is of “an acceptable quality.” The area of a fingerprint image based on its height and width can readily be used in step (g) to assess quality—such as by ensuring that those dimensions do not exceed certain bounds. Thus, step (g) confirms that no particular level of precision is required. *See, e.g., ACTV, Inc. v. Walt Disney Co.*, 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“While certain terms may be at the center of the claim construction debate, the context of the surrounding words of the claim also must be considered ...”).

The specification, which also contemplates detecting area *without* absolute precision, supports the Commission's findings. For example, in describing various embodiments, the specification states:

In step 708, a fingerprint area is detected. Usually, the black areas of the image are concentrated around the fingerprints. Thus, the detection step detects the areas concentrated by black pixels. ...

In various embodiments, quality classification can be based on if an area and shape of currently imaged fingerprints are: of equal size and shape, *within a previously determined threshold* associated with an acceptable quality fingerprint, etc.

A295 (col.15 ll.43-46); A294 (col.14 ll.29-33). The specification teaches that absolute precision is not the goal and that a predetermined threshold measure of area is sufficient. *See Pass & Seymour, Inc. v. ITC*, 617 F.3d 1319, 1324 (Fed. Cir. 2010) ("The specification ... confirm[s] that this plain meaning is appropriate in the context of this claim limitation.").

In contrast, Appellant's proposed construction requires some additional level of (as yet unspecified) precision beyond a perfectly fitting bounding box to detect "a fingerprint area." This Court should reject Appellants' request to read any such additional limitation into the claims because it finds no support in the claim language or the specification. *See, e.g., MBO Labs., Inc. v. Becton, Dickinson & Co.*, 474 F.3d 1323, 1330-31 (Fed. Cir. 2007) (refusing to import additional limitation that was unsupported by the claim language). Appellants contend that a

bounding box cannot be used to detect a fingerprint area because “[t]he same bounding box could contain shapes with area anywhere from almost nothing to the entire area of the box.” Br. 34-35. That argument misses the mark because it is just another way of criticizing the *precision* of the area detection. Regardless, neither the plain language nor the specification requires a certain level of precision.

**2. Step (f) Does Not Require Detecting A Fingerprint Shape With Absolute Precision**

Limitation (f) of claim 19 of the '344 patent requires (A297):

(f) detecting a fingerprint shape based on an arrangement of the concentrated black pixels in an oval-like shape in the binarized fingerprint image ....

As with step (e), the Commission held that the language “detecting a fingerprint shape” in step (f) needs no specialized construction. A131. The Commission applied the plain meaning and found that the accused products “detect[] a fingerprint shape” by using the same “bounding box” discussed in connection with step (e). *Id.* Appellants argue that the Commission’s “*de facto* construction” of step (f) is wrong because step (f) requires determining the *exact* contours of the fingerprint. Br. 36. This argument merely repackages Appellants’ argument that “a fingerprint area” must be detected with absolute precision and should be rejected for the same reasons.

The Commission’s “*de facto*” construction is correct. The plain language of the claim requires “detecting a fingerprint shape.” The Commission found that the

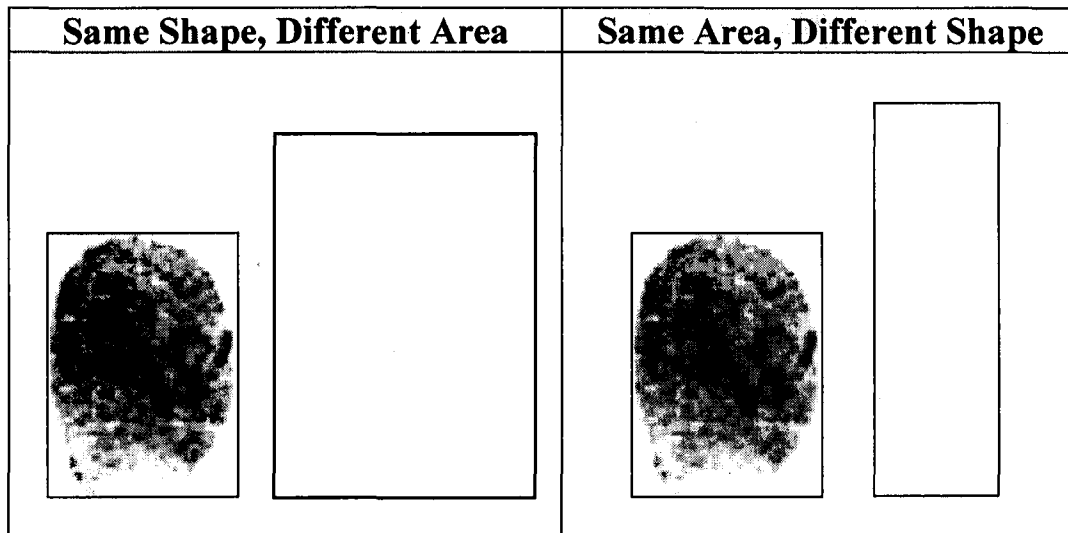


Mentalix software's bounding box detects fingerprint shape because it detects, for example, how tall, short, narrow or wide the bounded fingerprint image is. *See* A128; *see also* A132 (agreeing that Mentalix software [

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] The claims do not require determining the exact contours of the figure. Similarly, as noted, the specification teaches that no particular level of precision or contour analysis is necessary in "detecting a fingerprint shape." *See supra*; A295 (col.15 ll.43-46); A294 (col.14 ll.29-33) ("quality classification can be based on if an area and shape of currently imaged fingerprints are: of equal size and shape, within a previously determined threshold").

As with the area of the bounding box, the shape of the bounding box can be used in step (g) of claim 19 to determine the quality of the print. And as noted above, there is no "precision" requirement associated with this quality determination. For example, the first of each of the pairs of bounding boxes in the chart below might be the appropriate size and shape of a fingerprint, whereas the second ones are not.



Appellants argue that the Commission “conflated elements (e) and (f)” because “each detection must be ‘based on’ a different input.” Br. 36. This argument is flawed for at least two reasons. First, Appellants point to nothing—and there is nothing—that requires separate *inputs* to detect area and shape. Second, there can be no dispute that height and width inputs can be used to detect (and distinguish) both area and shape. As illustrated in the preceding chart, these two inputs can provide extensive information about the area and shape of an image, particularly in a system employing a method for identifying a known shape—a fingerprint.

At bottom, Appellants advocate a construction that would require some type of unspecified contour calculation at some unspecified level of granularity to “detect” shape. Br. 36-37. Nothing in the specification or claim language supports such a narrow construction. As the Commission properly recognized, Appellants’

argument would improperly require the court “to rewrite the claim term” to require detection of “the actual contours of the fingerprint image.” A89; *see, e.g., Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1383 (Fed. Cir. 2008) (“Courts cannot rewrite claim language.”); *K-2 Corp. v. Salomon S.A.*, 191 F.3d 1356, 1364 (Fed. Cir. 1999) (“Courts do not rewrite claims; instead, we give effect to the terms chosen by the patentee.”).

**3. Step (f) Does Not Require Determining Whether The Image Is Oval-Shaped**

Appellants argue that the Commission erred in construing the “oval-like shape” language in step (f) to mean that [

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] A131. The Commission properly construed this claim term.

First, the plain language does not require *determining* whether the concentration of black pixels is oval-shaped. Rather, step (f) requires “detecting a fingerprint shape *based on* an arrangement of the concentrated black pixels in an oval-like shape in the binarized fingerprint image.” A297 (col.19 ll.33-35). The sentence structure makes plain that “black pixels in an oval-like shape” are used in “detecting a fingerprint shape.” *Id.* Put another way, the claim language merely requires that the method be used on oval-like shaped concentrations of black pixels, such as fingerprints. A88-90; *see In re Hyatt*, 708 F.2d 712, 714 (Fed. Cir.

1983) (“A claim must be read in accordance with the precepts of English grammar.”). The plain language supports the Commission’s construction.

Second, the specification confirms this interpretation and provides:

In step 710, fingerprint shapes are detected. The fingerprint shapes can be oval-like shapes. The finger shape detection step *detects the areas concentrated by black pixels that are comprised of oval-like shapes.*

A295 (col.15 ll.43-49). There is nothing in the specification that requires a calculation or determination of *whether* the image is “oval-like.” *Id.*

Third, the prosecution history is consistent. Appellants contend that the prosecution history supports their position that oval-like shapes need to be identified because, they argue, “oval-like shapes” was added during prosecution by an amendment to overcome a rejection based on a Takhar reference. Br. 41. Specifically, Appellants argue that patent applicants distinguished Takhar because the asserted claim uses “oval-like *arrangement* of pixels, not merely of concentrations of pixels.” *Id.* (emphasis in original). Appellants are wrong.

The applicants distinguished the Takhar reference during prosecution for reasons unrelated to the term “oval-like shapes.” The applicants explained that “Takhar teaches of determining what characteristics are found within a fingerprint image” (such as the shape of the print’s “loop”), and it “does not teach or suggest detecting an individual fingerprint area and shape ... based on distribution of black pixels ... and determining whether the fingerprint area and shape are acceptable, as

recited in claim[] 19.” A301703; *accord* A301698; A301631. Far from limiting the ordinary meaning of the claim terms, the prosecution statements about Takhar “addressed another point entirely.” *01 Communique Lab.*, 2012 WL 3089367, at \*5. There is no “clear and unmistakable” disavowal of scope. *See SanDisk*, 415 F.3d at 1287 (no disavowal when statements are reasonably interpreted as consistent with proffered meaning of claims); *Purdue Pharma*, 438 F.3d at 1136.

Finally, the Commission’s construction is fully consistent with its rejection of Appellants’ invalidity contentions. *See infra* at 28-29.

#### **4. Substantial Evidence Supports The Commission’s Infringement Finding**

Appellants concede that the RealScan products at issue infringe all of the limitations of claim 19 except for steps (e) and (f). Appellants’ (cursory) non-infringement argument derives entirely from its claim construction argument, and thus also fails. Br. 35, 41.

The Commission’s infringement ruling is supported by substantial evidence. It is undisputed that Appellants’ products perform a pixel-level analysis to determine the height and width of a fingerprint and to draw a “bounding box” around the image based on those dimensions. *See* Br. 33 (stating that “[t]here is no real factual dispute as to the operation of the FedSumit software”). Further, the Commission credited Cross Match’s expert’s testimony in finding that |

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] Similarly, Appellants' own expert [

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Moreover, it is undisputed that the RealScan products at issue are used on fingerprint images, which generally have oval-like shapes. A130. Thus, the Commission's conclusion that [ CONFIDENTIAL MATERIAL OMITTED ] A132, is supported by substantial evidence. *See Nippon Steel*, 458 F.3d at 1352 (decision supported by substantial evidence “even if it is possible to draw two inconsistent conclusions from evidence in the record” (citation omitted)).

**5. Appellants Waived Any Arguments Regarding Invalidity Of The '344 Patent**

Finally, Appellants contend that if this Court rejects their claim construction and infringement arguments, then the '949 patent would teach element (f) (“detecting a fingerprint shape”) and thus is clear and convincing evidence that invalidates claim 19. Br. 39 & n.3. According to Appellants, “the Commission’s

validity finding should be remanded for reconsideration.” Br. 39 n.3.<sup>5</sup> But Appellants have waived any arguments as to the invalidity of the ’344 patent, and, in any event, are wrong.

First, Appellants waived this argument by raising it only in a footnote in their opening brief (*id.*). *See, e.g., Otsuka Pharm. Co. v. Sandoz, Inc.*, 678 F.3d 1280, 1294 (Fed. Cir. 2012) (“Arguments raised only in footnotes ... are waived.”). Moreover, insofar as Appellants try to raise an anticipation argument under § 102, *see* Br. 39 n.3 (citing § 102), that argument is long since abandoned because Appellants failed to raise it in either their post-hearing brief to the ALJ or in their petition for review. *See Finnigan Corp. v. U.S. ITC*, 180 F.3d 1354, 1362-63 (Fed. Cir. 1999).

Second, any such invalidity argument is without merit because the Commission found that the ’949 patent fails to disclose two *other* limitations of claim 19 (which Appellants ignore). Specifically, the Commission found that the ’949 patent does not teach “filtering images as required by element (c) of claim 19” and does not teach “binarizing the filtered fingerprint image as required by element (d) of claim 19.” A166; A168. Appellants have not challenged those findings here. For that reason alone, Appellants’ invalidity argument fails. *See,*

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<sup>5</sup> It is unclear whether Appellants now assert obviousness under 35 U.S.C. § 103 (rejected below) or anticipation under 35 U.S.C. § 102 (abandoned below). *See* Br. 39 n.3 (citing § 102 but challenging the “validity finding”).

*e.g.*, *Vizio*, 605 F.3d at 1342-43 (rejecting anticipation and obviousness arguments where prior art does not teach every claim limitation).

Third, Appellants' invalidity argument fails because the finding that the '949 patent does not teach "detecting a fingerprint shape" (per step (f)) is supported by substantial evidence. *See id.* at 1342 (explaining that contours of prior art is a question of fact reviewed only for substantial evidence and affirming Commission's finding of no anticipation and non-obviousness). Contrary to Appellants' argument, the Commission did *not* hold that the '949 patent detects the shape and checks the quality based on the "the left-most, right-most, top-most, and bottom-most edges of a fingerprint image." Br. 38. Rather, the Commission found that the '949 patent "does not teach element (f)" because it "does not determine individual fingerprint shapes." A165. The Commission found that the '949 patent takes an "image pattern" and "find[s] a separating point [along the vertical axis] between two fingers" thereby determining "the individual fingerprint areas." A157. Then, "after the individual fingerprint areas are determined," the process collects "feature data" of the prints consisting of the locations of the knuckles along the finger. *Id.* That "feature data"—*not* the overall shape of the finger or print—is used for identification purposes. Thus, because the '949 patent does not teach step (f), the Commission's validity ruling is fully consistent with its infringement finding. *Cf.* Br. 38-39. Finally, even if this Court rejects the



Commission's non-obviousness finding, a remand would be required to assess secondary considerations. *See* A171 n.17 (finding arguments regarding secondary considerations "moot[]").

The Commission correctly construed claim 19 and substantial evidence supports its infringement and validity rulings.

**B. Substantial Evidence Supports The Commission's Finding That Suprema Induced Infringement**

Appellants argue that "the Commission's finding of inducement cannot stand" because "the Commission's finding of willful blindness is premised only on *inaction*." Br. 24-25. Appellants are wrong on the law and the facts.

Inducement is a factual finding that this Court reviews for substantial evidence. *See Global-Tech*, 131 S. Ct. at 2068; *Power Lift, Inc. v. Lang Tools, Inc.*, 774 F.2d 478, 480 (Fed. Cir. 1985). Section 271(b) states: "Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b). Establishing induced infringement requires showing that "once the defendants knew of the patent, they 'actively and *knowingly* aid[ed] and abett[ed] another's direct infringement.'" *DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (en banc) (alteration in original) (citation omitted); *see also Merial Ltd. v. Cipla Ltd.*, 681 F.3d 1283, 1303-04 (Fed. Cir. 2012) ("To support a finding of inducement under § 271(b), the accused infringer must have knowingly and intentionally induced another party's direct infringement."). The knowledge

requirement may be satisfied by actual knowledge or the doctrine of “willful blindness”—under which “(1) the defendant must subjectively believe that there is a high probability that a fact exists and (2) the defendant must take deliberate actions to avoid learning of that fact.” *Global-Tech*, 131 S. Ct. at 2070. Induced infringement may be established by circumstantial evidence. *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 700 (Fed. Cir. 2008).

Appellants concede that Suprema intentionally aided and abetted Mentalix’s infringing actions. Br. 24-32. As the Commission explained, “the record is replete with evidence of Suprema’s efforts to collaborate with Mentalix to import the scanners and to help adapt Mentalix’s FedSubmit software to work with Suprema’s imported scanners and SDK.” A224. For example, the collaborative efforts included [

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] A224.

Appellants only challenge the Commission’s finding that the knowledge requirement is satisfied—*i.e.*, that Suprema “‘willfully blinded’ itself to the infringing nature of Mentalix’s activities.” A220. Specifically, Appellants argue that: (1) *Global-Tech* imposed a bright-line rule prohibiting finding willful

blindness based in part on “steps [a party] did not take” (Br. 26); (2) the Commission’s inducement finding is not supported by sufficient evidence because the Commission only relied on two passive acts; and (3) the Commission’s finding effectively imposes a duty to obtain an opinion of counsel. Br. 24-32. Appellants are wrong and misrepresent the governing law and the evidentiary record.

**1. *Global-Tech* Does Not Require That Willful Blindness Be Premised On An Arbitrary Class Of “Active” Steps**

*Global-Tech* does not require a certain class of “active” steps before courts can find willful blindness. 131 S. Ct. at 2068-72. Instead, the key teaching of *Global-Tech*, is that mere inadvertence or negligence or even gross recklessness is insufficient and that willful blindness requires finding that the inducer, by its actions or *inactions*, *purposely* avoided knowledge of the patentee’s rights. *See id.* Indeed, the finding of willful blindness rests on purposefully *not* doing something—*i.e.*, avoiding learning something. *Id.* at 2069 n.6 (defendant may not “close his eyes, when he pleases, upon all sources of information, and then excuse his ignorance by saying that he does not see anything”) (citation omitted)).

Accordingly, the inquiry is whether the inducing party is “deliberately shielding [itself] from clear evidence of critical facts that are strongly suggested by the circumstances.” *Id.* at 2068-69; *see also id.* at 2069 n.8 (inquiry is whether there are “*deliberate* steps to remain ignorant of [patent] rights despite a high probability that the rights exist and are being infringed”). In *Global-Tech*, the

Court upheld an inducement finding based in part on certain *in*actions by the inducing party—including not making full disclosure to the attorney from whom a right-to-use opinion was sought. *Id.* at 2071. Thus, *Global-Tech* does not require that a willful blindness finding be premised solely on certain “active steps.”

## 2. There Is Substantial Evidence To Support the Commission’s Finding Of Willful Blindness

Appellants misrepresent the record by asserting that the Commission’s conclusion is based only on inaction. There is substantial evidentiary support in the record, akin to that in *Global-Tech*, to support the Commission’s finding of willful blindness. In *Global-Tech*, the Supreme Court affirmed a finding of inducement because the fact finder “could have easily found” that the defendant “willfully blinded itself to the infringing nature of the sales it encouraged.” *Id.* The Court cited evidence that (i) the accused infringer copied the patentee’s products; (ii) the accused infringer “refrained from telling [its] attorney that its design was copied directly from [the patentee],” and (iii) the CEO of the accused infringer “performed ‘market research’ and ‘gather[ed] information as much as possible.’” *Id.* at 2064, 2071 (citation omitted).

The same result follows from the similar record here of purposeful activity. A220-23. As the Commission explained, the record established that Suprema carefully studied [CONFIDENTIAL MATERIAL OMITTED], researched Cross Match’s patents, and sought [CONFIDENTIAL MATERIAL OMITTED]

CONFIDENTIAL MATERIAL OMITTED] A221. Suprema admits that it searched for “potentially relevant patents” (Br. 28) and that it found at least the ’562 patent (Br. 12, 25-26)—[ CONFIDENTIAL MATERIAL OMITTED

CONFIDENTIAL MATERIAL OMITTED ] and which has the same inventor as the ’344 patent. A221. In the context of those *active* efforts, the Commission found it telling that Suprema nonetheless “[

CONFIDENTIAL MATERIAL OMITTED ]” and failed to obtain the opinion of counsel, which “undoubtedly would have uncovered the ’344 patent.” A223.

While not dispositive of this issue, Appellants contend that Suprema did not become aware of the ’344 patent because it had no reason to review the ’562 patent thoroughly. According to Appellants’ view of the evidence, Suprema’s Executive Vice President of Research and Development, Mr. Song, purportedly only reviewed the *abstract* of the ’562 patent (whereas the reference to the ’344 patent’s application was in the *body* of the ’562 patent) and concluded that the ’562 patent did not have “any relevance to the products it had in mind.” Br. 12. That explanation is not credible because Appellants admit that Suprema “abandoned certain planned features so as to stay far outside the scope of the ’562 patent.” Br. 12 n.1. It is implausible that Appellants would have done so if Suprema had no concerns about the ’562 and did not bother to finish reading it. Moreover,

Appellants were aware of the '344 patent at least since February 20, 2010, when Cross Match filed its suit in district court. *See supra* at 1; A350008-10.

In view of the foregoing record evidence, the Commission revealed its dubious view of Suprema's denials of actual knowledge, and concluded that "*even if Suprema did somehow fail to learn of the '344 patent ...* |

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| Suprema willfully blinded itself to the evidence of the existence of the '344 patent and therefore deliberately shielded itself from the nature of the infringing activities it actively encouraged and facilitated Mentalix to make." A223-24.<sup>6</sup> That finding is reasonable and supported by substantial evidence. *See Nippon Steel*, 458 F.3d at 1352 (court "must affirm a Commission determination if it is reasonable and supported by the record as a whole" even if Court could reach another result "in the first instance" (citation omitted)); *see also Global-Tech*, 131 S. Ct. at 2068.

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<sup>6</sup> Appellants incorrectly state that "the undisputed record evidence establishes" Suprema had no actual knowledge of the '344 patent. Br. 24-25. After finding willful blindness, there was simply no need to determine actual knowledge. Regardless, there was substantial circumstantial evidence of actual knowledge, *see, e.g., Massa v. Dep't of Def.*, 815 F.2d. 69, 73 (Fed. Cir. 1987) (circumstantial evidence can prove knowledge); *Global-Tech*, 131 S. Ct. at 2073 (Kennedy, J., dissenting) ("[c]ircumstantial facts" "are often probative of actual knowledge"), and the Commission was justifiably dubious of Suprema's denials of actual knowledge. A223-24.

**3. Suprema's Failure To Obtain Advice of Counsel Supports the Commission's Finding Of Willful Blindness**

Appellants take the Commission to task for purportedly “infer[ring] intentional infringement of the '344 patent from Suprema's failure to obtain an opinion of counsel *as to the '562 patent*”—“*a non-infringed patent.*” Br. 31. Appellants' argument is wrong and misrepresents the record.

First, contrary to Appellants' suggestion, the Commission did not place dispositive weight (or indeed any substantial reliance) on the failure to obtain advice of counsel. Instead, the Commission said that its conclusion would be the *same* regardless. Cf. Br. 30-31 (incorrectly asserting an improper “adverse inference”). Indeed, the Commission stressed that “Suprema's deliberate avoidance of acquiring knowledge of the '344 patent is further shown by its failure to obtain the opinion of counsel.” A223 (emphasis in original). Thus, Suprema's failure to obtain an opinion of counsel was simply *additional* confirmation that Suprema was avoiding knowledge of the '344 patent, “*even if Suprema did somehow fail to learn of the '344 patent.*” A223-24.

Second, Appellants cite no cases (and Cross Match is aware of none) prohibiting courts from considering the failure to obtain an opinion of counsel as one factor in the totality of evidence showing willful blindness. Appellants' reliance on *In re Seagate Technology, LLC*, 497 F.3d 1360 (Fed. Cir. 2007) (en banc), is misplaced. There, in addressing willful infringement, this Court reiterated

that, although the “failure to proffer any favorable advice [of counsel] is not dispositive of the willfulness inquiry, *it is crucial to the analysis.*” *Id.* at 1369. *Seagate* is consistent with the Commission’s findings.

Third, Appellants mischaracterize the role of the ’562 patent in the analysis. Appellants argue that it is “particularly egregious” to draw conclusions about knowledge of the ’344 patent based the failure to obtain advice of counsel *as to the non-infringing ’562 patent*. Br. 31. This argument is flawed. It is undisputed that Suprema was so concerned about the ’562 patent that it “abandoned certain planned features so as to stay far outside the scope of the ’562 patent.” Br. 12 n.1. Moreover, Cross Match has vigorously litigated the ’562 patent and, as set forth in its separate appeal (Nos. 2012-1026, 2012-1124), contends that it *is* infringed. More importantly, the Commission simply found it telling that Suprema failed to seek advice of counsel as to infringement exposure *generally*—not specifically *as to the ’562 patent*.

The Commission’s willful blindness analysis adhered to binding precedent, is supported by substantial evidence, and should be affirmed. *See Global-Tech*, 131 S. Ct. at 2068.

**C. The Commission Properly Found A § 337 Violation Based On Suprema’s Inducement Of Mentalix’s Direct Infringement**

The Commission held that Suprema’s inducement of Mentalix’s direct infringement gives rise to a § 337 violation. A229-30. The Commission explained



that its “remedial authority to issue exclusion orders extends to violations of section 337 based on indirect infringement,” including “contributory and induced infringement.” A214-15.

Appellants now argue that a *subsequent* Commission case (*Certain Electronic Devices*) “squarely addressed” the circumstances in this case and *sub silentio overruled* the decision here. Br. 19, 21. Appellants contend that the Commission erroneously “used inducement by Suprema to satisfy the ‘nexus’ test for connection between importation and infringement” and that “[t]wo months later ... *Certain Electronic Devices* overruled that test.” Br. 21.

Appellants’ argument is flawed for three principal reasons. First, *Certain Electronic Devices* did not overrule—and instead *supports*—the Commission’s finding that Suprema’s inducement is a proper basis for a § 337 violation. Second, the statutory text and prior precedent compel the same conclusion. Third, even if *Certain Electronic Devices* changed Commission doctrine (it did not), Appellants cannot rely on that case to retroactively attack the decision under review here.

**1. *Certain Electronic Devices* Confirms That The Commission’s Decision Is Correct**

Appellants’ rely essentially exclusively on *Certain Electronic Devices* in arguing that induced infringement can no longer form the basis for a § 337 violation if the imported article has substantial non-infringing uses. Appellants’ reliance on that decision is misplaced and their characterization is flawed.

In *Certain Electronic Devices*, the Commission found no § 337 violation where ***there was no finding of induced or contributory infringement*** and the accused products were found to directly infringe only after importation. *Certain Electronic Devices* at 12-20. The Commission stated that in those circumstances, merely showing a “nexus” between importation and the subsequent infringement is not enough to establish a violation, *See id.* at 15-20. The Commission then stressed, however, that the complainant “***might have proved a violation of section 337 if it had proved indirect infringement***” and that “[t]he statutorily defined theories of indirect infringement [*i.e.*, inducement and contributory infringement] ***appropriately reach activities beyond direct infringement*** without resorting to the concept of a ‘nexus’ to imported articles.” *Id.* at 18. Accordingly, *Certain Electronic Devices* reaffirmed the longstanding principle that induced infringement forms a basis for a § 337 violation. *Id.* at 13, 15, 18-19.

Here, consistent with *Certain Electronic Devices*, the Commission found a violation where ***there was induced infringement***. The Commission held that, because “Mentalix is found to directly infringe claim 19 of the ’344 patent” and “Suprema is found to indirectly infringe claim 19 via induced infringement,” their “actions result in a finding of a violation of section 337 by both respondents.” A229-30.

Appellants argue that, because the Commission in *Certain Electronic Devices* “overruled” the nexus test as means of tying post-importation direct infringement to non-infringing imported goods (in a case where *there was no indirect infringement*), it means that inducement can no longer be the basis for a § 337 violation where “the only imported products are non-infringing staple articles of commerce.” Br. 21. That argument is flawed and a red herring.

First, in *Certain Electronic Devices*, as noted, the Commission expressly reaffirmed that, regardless of its nexus test holding, “section 337 may reach *articles involved in indirect infringement* of method claims” even when the articles do not directly infringe. *Certain Electronic Devices* at 19. Although the imported devices were staple articles (computers) capable of substantial non-infringing uses, the Commission repeatedly stressed that there *would* have been a § 337 violation if there had been indirect infringement. *E.g., id.* at 18.

Second, the Commission in this case did *not* rely exclusively on the “nexus” test. The Commission recognized that its “remedial authority to issue exclusion orders extends to violations of section 337 based on indirect infringement.” A213; A214-15. Then, after holding that Suprema induced Mentalix’s direct infringement, A220-24, the Commission correctly held that Appellants’ “nexus argument [was] moot” and found a § 337 violation based on Suprema’s

inducement. A229. Thus, the Commission recognized that inducement itself is sufficient to give rise to a § 337 violation, regardless of any “nexus” test.

Third, in essence, Appellants seek to eliminate inducement as an independent basis for a § 337 violation by engrafting a requirement that the imported goods have no substantial non-infringing uses. But that improperly conflates contributory infringement (which has such a requirement), 35 U.S.C. § 271(c), with inducement (which does not), *id.* § 271(b). This Court has squarely rejected that notion. Although a contributory infringement claim requires showing “no substantial non-infringing uses,” “[n]o such requirement ... exists for induced infringement.” *ERBE Elektromedizin GmbH v. Canady Tech. LLC*, 629 F.3d 1278, 1284 (Fed. Cir. 2010). Indeed, as discussed, both *Certain Electronic Devices* and the decision here made clear that inducement is an *independent* basis for a § 337 violation.

## 2. The Statutory Text And Prior Precedent Confirm That The Commission’s Decision Here Is Correct

The statutory text and longstanding prior precedent also confirm, as the Commission held, that inducement gives rise to a § 337 violation even if the imported products have non-infringing uses at the time of importation.

Section 337 premises violations on “infring[ment]” of U.S. patents, 19 U.S.C. § 1337(a)(1)(B)(i), and the Commission has long recognized that § 337 “embraces *any* direct, contributory and *induced* infringement” as “provided for

in the patent statute.” *Certain Hardware Logic Emulation Systems*, Inv. No. 337-TA-383, Comm’n Op. at 19 (Mar. 31, 1998) (citation omitted); *see also Certain Electronic Devices* at 13; *Certain Dynamic Random Access Memories*, Inv. No. 337-TA-242, Comm’n Opn. at 90-91 (Sept. 21, 1987).

In *Kyocera Wireless Corp. v. ITC*, 545 F.3d 1340 (Fed. Cir. 2008), this Court held that a § 337 violation could arise if the respondent induced third party infringement even though the accused products (certain chips) did not themselves infringe *as imported* but instead formed an infringing product only when combined with software after importation. *Id.* at 1353-54 (remanding for Commission to consider inducement). Similarly, in *Alloc, Inc. v. ITC*, 342 F.3d 1361 (Fed. Cir. 2003), this Court acknowledged that the importation of a non-infringing article (a flooring system) could give rise to inducement liability. *Id.* at 1374 (ultimately finding no inducement).

This precedent (which Appellants ignore) establishes that inducement can give rise to a § 337 violation regardless of whether the imported products have substantial non-infringing uses at the time of importation. There is nothing in *Certain Electronic Devices* (or any other case) to the contrary.

### **3. Regardless, Appellants Cannot Rely On Any Purported Subsequent Change In Commission Precedent At This Stage**

Finally, even if *Certain Electronic Devices* altered Commission doctrine in some way relevant to this case (it does not), Appellants cannot rely on that case to

retroactively attack the decision under review here. The decision of whether and how to apply a change in doctrine retroactively is one for the agency in the first instance. As the Supreme Court has held, “a court reviewing an agency decision following an intervening change of policy by the agency should remand to permit the agency to decide in the first instance whether [to] giv[e] the change retrospective effect.” *NLRB v. Food Store Emps. Union, Local 347*, 417 U.S. 1, 10 n.10 (1974); *see also Consolidated Edison Co. of N.Y., Inc. v. FERC*, 315 F.3d 316, 323 (D.C. Cir. 2003) (“parties before the agency [be] given notice and an opportunity to offer evidence bearing on the new standard”).

But Appellants have not asked this Court to remand for the Commission to consider the matter in the first instance, Br. 17-24, 67, and have waived any such relief. Therefore, *Certain Electronic Devices*—which is itself under review in this Court, *see S3 Graphics Co. v. ITC*, No. 2012-1127—cannot support reversal here.

### **III. THE COMMISSION PROPERLY FOUND A VIOLATION BASED ON INFRINGEMENT OF THE '993 PATENT**

#### **A. The Commission Correctly Construed Claims 10, 12, And 15 And Its Infringement Finding Is Supported By Substantial Evidence**

Appellants argue that the Commission’s finding that the RealScan-10/10F products infringe the asserted claims (10, 12, and 15) of the '993 patent rests on an erroneous claim construction. Appellants are wrong.

Asserted independent claim 10 of the '993 patent recites:

**10. *An optical system*** having an optical axis, said system forming an image of an object and ***comprising***:

- a) a prism having a first surface for contacting the object and a second surface, said first surface being oriented with respect to the optical axis at an angle greater than the angle of total internal reflection of the surface;
- b) an aperture stop;
- c) a first lens unit having a positive power between the aperture stop and the prism for forming a telecentric entrance pupil;
- d) a second lens unit having a positive power for forming a real image of the object, said second lens unit being on the image side of the first lens unit;***  
and
- e) a third lens unit for correcting the field curvature of the image contributed by the first and second lens units.

A261 (col.10 ll.18-34).

The Commission held that the claimed “optical system”—which includes a prism, aperture, and three “lens unit[s]”—permits non-lens elements, such as mirrors, between the lens units (rejecting Respondents narrowing construction based on the specification’s discussion of “lens systems”). A56-67. And, “[b]ased on [its] construction of ‘optical system,’” the Commission also held that nothing in the other claim terms—(a) through (e)—precludes non-lens elements between the lenses. A62.

Appellants now focus solely on element (d), and argue that the Commission erred by refusing to construe “second lens unit being on the image side of the first

lens unit” to preclude the use of a “non-lens element” between the claimed first and second lens units. According to Appellants, this limitation should be construed as “second lens unit is located on the side of the first lens unit where the real image is formed, *without any intervening non-lens elements* between the first lens unit and the second lens unit.” Br. 44-45 (emphasis in original).

Without expressly stating it, Appellants’ argument is that the Commission erred by construing the term “optical system” to allow the inclusion of non-lens elements (such as mirrors) in conjunction with the claimed lens units. *See* A56-67. Indeed, Appellants’ entire discussion of the ’993 patent’s specification (from which Appellants seek to import the additional claim limitation), relates, if at all, to the term “optical system.” As set forth below, the Commission properly construed “optical system” to allow the use of non-lens elements. There is no requirement in the claim language or the specification that would bar the use of a mirror between any of the recited lens units.

**1. The Commission Properly Held That “Optical Systems” Can Include Non-Lens Elements Between The Lenses**

The Commission properly construed “optical system” based on its plain language as including non-lens elements and refused to import a claim limitation from the specification.



**a. The Plain And Ordinary Meaning Of “Optical Systems” Supports The Commission’s Reading**

Appellants expressly concede that the plain language of “optical system,” recited in the claim 10 preamble, “may include non-lens elements” (Br. 49), as the Commission correctly held (A60). *See Phillips*, 415 F.3d at 1312-13 (claim terms generally given the “ordinary and customary meaning” that “the term would have to a person of ordinary skill in the art”); *Gemstar-TV Guide Int’l, Inc. v. ITC*, 383 F.3d 1352, 1364 (Fed. Cir. 2004) ( ““Unless compelled otherwise, a court will give a claim term the full range of its ordinary meaning ....”” (citation omitted)). *See* A200381. Appellants’ expert agreed. A65; *see also* A200380 (Tr. 1342-46); A200387 (Tr. 1369:15-22); A103230.

Appellants argue, however, that the claimed “optical system” takes on a specialized, narrower meaning. Appellants contend that the recited “optical system” includes a “triplet lens system” that excludes non-lens elements between the lens units. Br. 42-43. But the plain claim language does not use the term “lens system,” let alone define it to preclude non-lens elements. As the Commission properly recognized, the “open-ended transitional term ‘comprising’ in the preamble indicates that the ‘optical system’ claimed can include elements beyond those listed in the claim” and none of those other elements have “language limiting the number and type of elements that can be included in the ‘optical system.’” A59; *see Georgia-Pacific Corp. v. U.S. Gypsum Co.*, 195 F.3d 1322, 1327-28 (Fed.

Cir. 1999) (“‘comprising’ ... is inclusive or open-ended and does not exclude additional, unrecited elements or method steps”). Thus, even treating the three “lens units” in claim 10 as part of a “lens system,” the plain language does not preclude non-lens elements in between the “lens units.” See *MBO Labs.*, 474 F.3d at 1330-31 (refusing to read in an additional limitation that was unsupported by the claim language). There is no support for Appellants’ narrowing construction of the claim term “optical systems.”

**b. The Specification Does Not Limit The Plain Meaning Of “Optical Systems”**

Appellants acknowledge that the exclusion of non-lens elements “is not expressly recited in the claims.” Br 45. They instead rely entirely on the specification to support a specialized construction. *Id.* Appellants make five primary arguments for limiting the claim language. Each should be rejected.

First, Appellants repeatedly and erroneously rely on references in the specification about “lens systems.” *E.g.*, Br. 46 (“the specification consistently and repeatedly drills home that the *lens systems* of the invention do not employ non-lens elements”). The claims, however, describe an “optical system” (“consisting of” various components including three “lens units”), which Appellants concede is broader than “lens system.” Br. 49. Therefore, the specification’s discussion of “lens system” cannot be a “clear disavowal of claim

scope” with respect to the broader term “optical system.” *Brookhill-Wilk 1*, 334 F.3d at 1299.

Second, Appellants contend that, according to the specification, an object of the patent is to teach a system without non-lens elements. Br. 45. However, the specification discloses at least *four objects* of the invention, A257 (col.1 ll.46-57), and also expressly contemplates “these *and other objects*.” *Id.* (col.1 ll.58). This Court has repeatedly confirmed that *an* object of an invention may not be imported from the specification as a limitation because it “is merely one of several objectives that can be achieved through the use of the invention.” *See, e.g., Brookhill-Wilk 1*, 334 F.3d at 1301. Moreover, the specification does not state that it is attempting to teach or describe an “optical system” without non-lens elements. Appellants cannot selectively import a particular “object” as a limitation of the claimed “optical system.”

Third, Appellants argue that the specification criticizes and distinguishes prior art employing non-lens elements and off-axis optics. Br. 45-49. Appellants mischaracterize the nature and implication of such statements. In discussing prior art, the '993 patent's specification distinguishes *specific* aspects of three prior art references—namely, “prisms for correcting optical distortion,” “holographic optical elements,” and “off-axis optics.” A257 (col.1 ll.17-18, ll.30-31, ll.38-39). The specification does *not* specifically distinguish the use of mirrors in the prior

art. Thus, the specification's stated rationales (*e.g.*, to provide "improved" or "inexpensive" lens systems for fingerprint detection) cannot preclude the use of mirrors. Indeed, its discussion of prior art simply provides contexts for its *non-exhaustive* enumeration of the patents' "objects." A257 (col.1 l.58). Thus, as the Commission found (A66), Appellants cannot establish that this general discussion of the prior art and various objects constitutes an "unmistakable disavowal." *Epistar*, 566 F.3d at 1335-36; *Brookhill-Wilk 1*, 334 F.3d at 1299.

Fourth, Appellants rely on embodiments and illustrations that do not use non-lens elements. Br. 47. This Court has repeatedly held that, "although the specification often describes very specific embodiments of the invention," courts must not "confin[e] the claims to those embodiments" unless the patentee clearly intends to make the claims and embodiments "strictly coextensive." *Phillips*, 415 F.3d at 1312, 1323; *see also Innova/Pure Water, Inc. v. Safari Water Filtration Sys.*, 381 F.3d 1111, 1117 (Fed. Cir. 2004).

Here, the specification expressly *rejects* any notion that the claims are "strictly coextensive" with exemplary embodiments and illustrations. Specifically, the specification stresses that "**further embodiments** may be perceived by those skilled in the art without departing from the scope of the invention as defined by the following claims" and that "[i]t is to be understood, of course, that both the drawings and the description are explanatory only and are *not restrictive of the*

*invention.*” A258 (col.4 ll.64-67, col.3 ll.52-54). There is no justification for restricting the claim language to the stated embodiments. *See Phillips*, 415 F.3d at 1312, 1323; *Innova/Pure Water*, 381 F.3d at 1117.

Finally, Appellants rely on the “lack [of] any language describing lens systems that *include* any non-lens elements.” Br. 47. But the idea that the specification must have an express statement of *inclusion* in the specification to give claim terms the breadth of their ordinary meaning turns claim construction on its head. Moreover, for purposes of this appeal, there *is* such inclusive language because it is *conceded* that the plain meaning of “optical system” can “include non-lens elements.” Br. 49; *see also* A64-65 (“the specification of the ’993 patent does not include a specific definition of the term ‘optical system’ and ... the rest of the specification does not support a disavowal of claim scope”).

Appellants failed to establish any “unmistakable disavowal” in the specification to support their specialized construction of “optical system.” *Epistar*, 566 F.3d at 1335-36. The Commission properly gave this term its plain meaning, which permits the use of “non-lens elements” such as mirrors. A56-57.

**2. The Commission Properly Held That “Second Lens Unit Being On The Image Side of the First Lens Unit” Does Not Preclude Non-Lens Elements Between The Lens Units**

The Commission likewise properly construed the limitation “said second lens unit being on the image side of the first lens unit” as not precluding non-lens

elements between the lenses. A62. The plain language of this limitation requires only that the second lens unit be on the image side of the first lens unit. Claim element 10(d) does not suggest that non-lens elements may not be used in the “optical system” or between “the second lens unit” and the “image side of the first lens unit.” *See* A59 (none of the elements, including (d), “include language limiting the number and type of elements that can be included in the ‘optical system’”). There is no basis in the claim language for importing this limitation. *See MBO Labs.*, 474 F.3d at 1330-31. Also, for the same reasons discussed above, Appellants point to nothing in the specification that limits the plain claim language. Thus, Commission correctly recognized that neither the claim language nor the specification precludes the inclusion of non-lens elements (such as mirrors) in the claimed “optical system.”<sup>7</sup>

### **3. The Commission’s Infringement Finding Is Supported By Substantial Evidence**

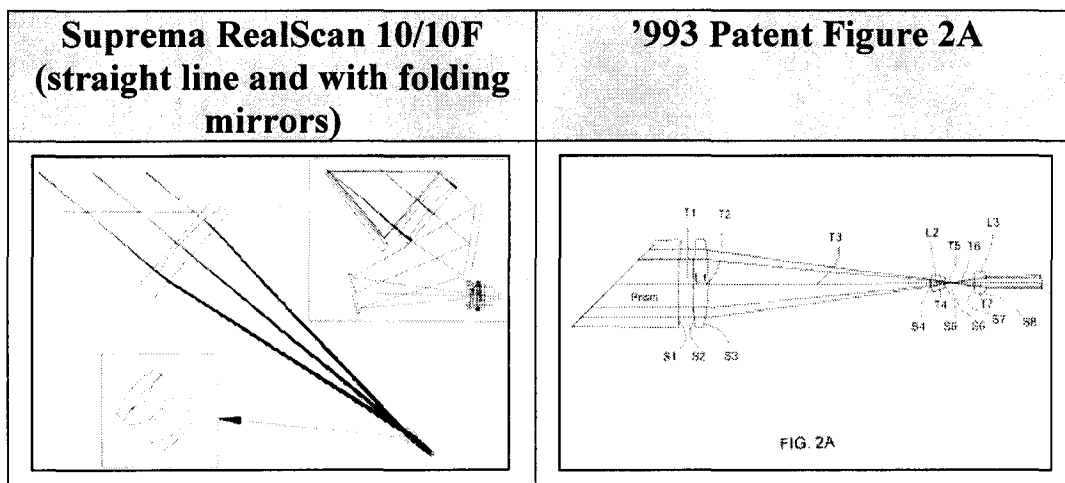
Appellants argue that the RealScan-10/10F products do not infringe claims 10, 12, and 15, because they employ non-lens elements (mirrors) that, under Appellants’ proposed claim construction, are disclaimed. As with their claim construction argument, Appellants’ non-infringement argument also fails.

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<sup>7</sup> The Commission did not, as Appellants contend (Br. 49), refuse to narrow the plain language based *only* on the claim’s use of the open-ended term “comprising.”

The Commission's infringement ruling is supported by substantial evidence. Based on its proper construction, the Commission found that the accused RealScan-10/10F products are "optical systems" that infringe all of the limitations of claims 10, 12, and 15, because the presence of mirrors between the lens units does not preclude infringement. A102-15.

Appellants' sole basis for challenging the Commission's finding of infringement is that the RealScan-10/10F products include a mirror between the first and second lens units. In light of the proper claim construction of "optical system," that argument fails because the claimed "optical systems" can contain non-lens elements between the lens units. Tellingly, as shown below, Suprema itself depicts the RealScan 10/10F optical system in a straight line form (without folding mirrors). This precisely mimics the '993 patent's depictions. Suprema's insert then depicts simply inserting two mirrors to fold the optical axis and make the system fit in its carrying case.



A304012 (CX-1C); A304013 (CX-3C); A252 (fig. 2A); *see also* A200172 (Tr. 511-13); A302956-58; A200173 (Tr. 517); A302560 (CDX-1C.045); A302564-65 (CDX-1C.054-.056) (Cross Match expert testimony about RealScan drawings).

Substantial evidence supports the Commission's infringement finding.

**B. The Commission's Finding That The Asserted Claims Of The '993 Patent Are Non-Obvious Is Supported By Substantial Evidence**

Appellants argue that the Commission lacked substantial evidence to find the asserted '993 patent claims non-obvious over the '060 patent (A302022-32) in combination with the '051 patent (A301994-2004). Appellants contend that the Commission erred by finding that (1) "lens 28 of the '060 patent does not form a telecentric condition," and (2) there is "no motivation to combine" the '060 and '051 patents because "the '051 patent discloses a lens system for imaging applications." Br. 53. Appellants are wrong. Both findings are supported by substantial evidence because they are "reasonable and supported by the record as a whole." *Spansion*, 629 F.3d at 1344 (citation omitted). And each finding provides an independent basis on which to affirm the Commission's non-obviousness determination. Further, even if combined, the references do not invalidate the asserted claims.



**1. The Commission's Finding That The '060 Patent Does Not Disclose The Telecentric Geometry Recited In Element 10(c) Of The '993 Patent Is Supported By Substantial Evidence**

The Commission's finding that the '060 patent does not disclose the telecentric condition in claim 10(c) is supported by substantial evidence. And, because Appellants do not contend that the '051 patent discloses telecentricity, this alone is dispositive of non-obviousness and requires affirmance. *See Vizio*, 605 F.3d at 1342-43 (affirming Commission's non-obviousness finding).

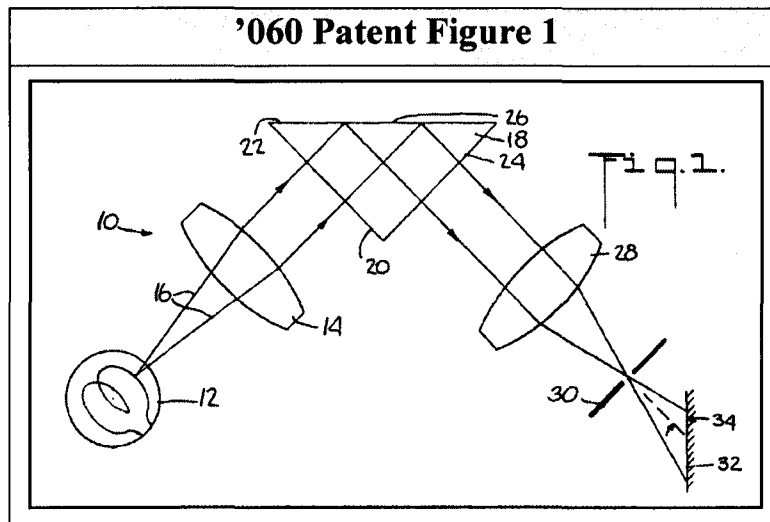
Claim 10(c) of the '993 patent provides:

a first lens unit having a positive power between the aperture stop and the prism for forming a telecentric entrance pupil.

A261. This element recites creating a “telecentric” condition using a particular configuration of optical elements—a “first lens unit” that is located on what is known as the “image side” of the prism (*i.e.*, between the prism and the aperture stop and sensor), as opposed to the “illumination side” (or “object side”) of the prism (*i.e.*, between the prism and the light source or object).

The Commission found that the '060 patent does not disclose the telecentric geometry of claim 10(c), and instead discloses creating an entirely different telecentric condition on the *opposite* (illumination) side of the prism. The '060 patent discloses only two lenses—one (labeled 28) on the image side of the prism

and the other (labeled 14) on the illumination side of the prism. Figure 1 from the '060 patent shows both lenses within the optical system.



The Commission found that the '060 patent teaches that lens 14 achieves a telecentric condition, not lens 28.

Appellants challenge the Commission's lens 28 finding, arguing that it (i) is not supported by substantial evidence (Br. 53, 58), and (ii) "contradicts the express teachings of the ['060 patent]" and "undisputed optical science principles" (Br. 54). Both arguments fail.

First, the record contains substantial evidence to support the Commission's finding that the '060 patent *only* discloses achieving a telecentric condition with lens 14 on the *illumination* side of the prism—not with lens 28 on the image side, as required by claim 10(c). A146; A152. As the Commission explained, the '060 specification expressly teaches that a parallel beam is formed *on the illumination side* by the combination of "*lens 14*" with the "light source." See A150-51; A146-

147 (citing A302027 col.3 ll.1-3; A302022). Because the light reaches the prism, “lens 14 ... ‘deflect[s] the light beams 16 into parallel relationship with respect to another.’” A146 (quoting A302027 (col.3 ll.1-3; A302022)); *see also* A302026 (col.1 ll.31-33); A200502 (Tr. 1824-25). Rebutting Appellants’ expert, Cross Match’s expert confirmed that the telecentric condition is the result of lens 14, on the illumination side of the optical system, *not* lens 28 on the image side. A200502 (Tr. 1824-28);

By contrast, there is no evidence in the ’060 specification (or otherwise) that lens 28 creates a telecentric condition.<sup>8</sup> Indeed, the specification states only that “the reflected light comes out through face 24 of the prism and is focused with an achromatic lens 28 through a diaphragm 30 onto an inclined focal plane 32.” A302027 (col.3 ll.38-40). There is no indication that lens 28 deflects the light beams “into a parallel relationship,” as disclosed about lens 14. *See also* A200502-03 (Tr. 1827-28).

The Commission’s determination that lens 14 creates a telecentric condition on the illumination side was “reasonable and supported by the record as a whole.” *Spanion*, 629 F.3d at 1344 (citation omitted).

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<sup>8</sup> The Commission rejected the assertion of Appellants’ expert, Dr. Sasian (that lens 28 is telecentric) as contrary to the record. A148-49.

Second, Appellants fail to point to any record evidence, let alone clear and convincing evidence, that undermines the Commission's non-obviousness finding. Appellants are silent as to the '060 patent's disclosures about "lens 14" and admit that the patent "does not use the terminology 'telecentric entrance pupil'" in describing lens 28. Br. 62. Rather, Appellants rely entirely on inferences from a figure in the '060 patent to overcome the specification's express teaching. Br. 55-58. The law is well settled, however, that "patent drawings do not define the precise proportions of the elements and *may not be relied on* to show particular sizes if the specification is completely silent on the issue." *Hockerson-Halberstadt, Inc. v. Avia Grp. Int'l*, 222 F.3d 951, 956 (Fed. Cir. 2000); *see also Hologic, Inc. v. SenoRx, Inc.*, 639 F.3d 1329, 1338-39 (Fed. Cir. 2011); Manual of Patent Examining Procedure § 2125 (8th ed., rev. July 2010). Thus, Figure 1 is by definition not clear and convincing evidence.

In any event, Figure 1 does not support Appellants' position. Appellants argue that it implies that lens 28 creates telecentricity because it depicts the light rays (a) as parallel when they enter lens 28 and (b) as converging at the aperture stop (labeled 30). Br. 54, 56, 62-63. However, Appellants stipulated below that there are various conventions for depicting optical systems and that a diagram's depiction of rays as parallel does not purport to show *when* or *how* a telecentric

condition was created. A146.<sup>9</sup> Nor does the figure's display of rays passing "through the aperture" mean that they converge "*at* the aperture." Br. 54; *see also* A200501-02 (Tr. 1823-24). The Commission found that the '060 patent instead "discloses that the light 'is focused with an achromatic lens 28 through [the aperture]'"—*not* that the aperture stop is "*at* the focal point of lens 28.'" A150-51 (first emphasis in original).

The record supports the Commission's findings that (a) the '060 patent's lens 14 (on the illumination side of the prism)—not lens 28 (on the image side)—achieves telecentricity, and (b) patent '993 claim 10(c) requires that telecentricity be achieved on the *image* side of the prism. Thus, the Commission's finding that Suprema failed to meet its burden to establish obviousness is supported by substantial evidence, *see Spansion*, 629 F.3d at 1343-44, and should be affirmed for this reason alone. *See Vizio*, 605 F.3d at 1342-43.

## 2. The Commission's Finding Of No Reason To Combine The '060 And '051 Patents Is Supported By Substantial Evidence

Appellants also challenge the Commission's finding that there is no reason to combine the '060 and '051 patents. Appellants argue that (i) the Commission applied the wrong analysis because "[t]he Supreme Court, in *KSR*, expressly

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<sup>9</sup> If anything, the most natural interpretation of the figure is that *lens 14*—from which the rays emerge in parallel *before even reaching lens 28*—achieves a telecentricity.

rejected the requirement that motivation to combine must be shown in order to show obviousness” (Br. 59) and (ii) the Commission’s finding of no motivation lacks substantial evidence. Both arguments are flawed.

First, the Commission properly applied *KSR*. Contrary to Appellants’ argument, *KSR* did not eliminate the need to examine a reason for combining elements from separate prior art references. To the contrary, as the Commission explained, “it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” A143 (emphasis added by Commission) (quoting *KSR*, 550 U.S. at 418). Similarly, as this Court has repeatedly recognized since *KSR*, the party asserting invalidity “must ‘demonstrate “by clear and convincing evidence that a skilled artisan would have had ***reason to combine the teaching of the prior art references*** to achieve the claimed invention.”’” *Euranda, Inc. v. Mylan Pharms. Inc. (In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.)*, 676 F.3d 1063, 1068-69 (Fed. Cir. 2012) (quoting *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009)).<sup>10</sup> *KSR* merely requires that the inquiry remain “flexible,” *id.* at 1069, as the

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<sup>10</sup> *Accord Otsuka Pharm.*, 678 F.3d at 1292; *Ortho-McNeil Pharm., Inc. v. Mylan Labs., Inc.*, 520 F.3d 1358, 1364-65 (Fed. Cir. 2008).

Commission acknowledged, A143. The Commission's reliance on a lack of reason or motivation is fully consistent with *KSR* and this Court's subsequent holdings.

Second, substantial evidence supports the Commission's finding that there is no reason to substitute the lens system of the '051 patent into the optical system of the '060 patent. A153-54. The Commission reasoned, based on the prior art and expert testimony, that the '051 patent is directed to a fundamentally distinct subject matter (photographic cameras), not to fingerprint scanners, and that "nothing in the record ... indicate[s] why one of ordinary skill in the art would have substituted a lens system for a camera into a fingerprint detection device." A154

On appeal, Appellants' assertion of reason to combine rests entirely on the fact that the '060 patent "fails to disclose the constructional data" of lens 28. Br. 61. According to Appellants, that alone provides the necessary motivation to select and insert the '051 patent's triplet lens system. That turns the reason/motivation analysis on its head and the Commission properly discredited the same argument below when it was offered by Appellants' expert. A154. The *failure* to disclose details about a given element does not satisfy Appellants' burden to show an affirmative reason for a skilled practitioner to select a reference (among many in the universe of references) to fill that void, let alone one drawn from unrelated subject matter that happens to involve optics. *See In re Cyclobenzaprine*, 676 F.3d at 1068-69.

In any event, the record supports the Commission's finding that the prior art addresses distinct subject matter from the '993 patent's invention. Appellants acknowledge that the '051 patent is not about biometric imaging (let alone fingerprint imaging). Br. 59; *see also* A200504, A200506 (Tr. 1832-35, 1842). Appellants' proffered similarities between camera lenses and fingerprint scanners misses the larger point. A photographic camera simply does not address the problem that the '993 patent solves—*i.e.*, the problem of imaging a curved, three dimensional fingerprint on a flat surface.

Likewise, the '060 patent is materially different from the '993 patent. The '060 patent is directed to an "identification device" used to *compare* an image against a known, pre-selected image, A302026 (col.1 ll.70 – col.2 ll.3); A302026 (col.2 ll.23-25), whereas the '993 patent does not address or mention image "comparison." *See* A200503, A200507 (Tr. 1828-30, 1847) (Cross Match expert testimony). Also, the '060 patent says nothing about the '993 patent's particular optical arrangement. The '060 patent uses a single lens on the illumination source side of the prism (lens 14) and another lens on the detecting optics side of the prism (lens 28), and does not teach correcting field curvature. It does not disclose using multiple lens units on the detecting side of the optical system, let alone "a second lens unit having a positive power for forming a real image of the object"



(claim 10(d)), or “a third lens unit for correcting field curvature” (claim 10(e)). A261 (col.10 ll.29-34).

In sum, substantial evidence supports the Commission’s finding that Appellants failed to prove by clear and convincing evidence that “a skilled artisan would have had reason to combine the teaching of the prior art references to achieve the claimed invention.” *In re Cyclobenzaprine*, 676 F.3d at 1068-69 (citation omitted).

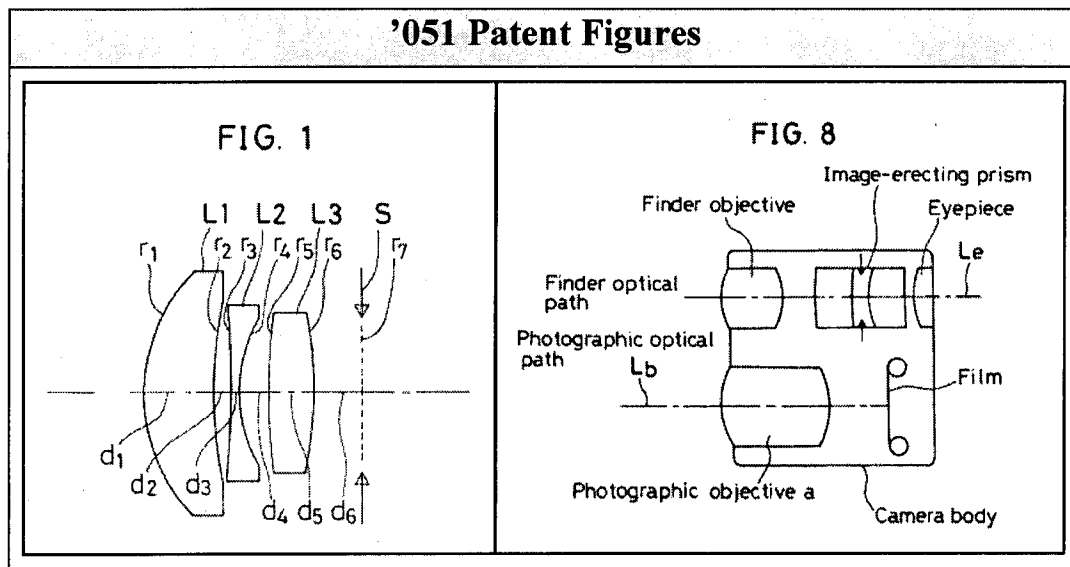
**3. Even If The ’051 And ’060 Patents Are Combined, They Still Do Not Disclose Claim Elements 10(c) Or 10(e)**

If this Court finds that there is a reason to combine the references (there is not), this Court should remand for further consideration of that combination. Regardless, Appellants’ obviousness argument based on this combination fails because the ’051 patent does not disclose claim limitations 10(c) or 10(e) (and Appellants do not contend that the ’060 patent discloses these limitations). *See Vizio*, 605 F.3d at 1343 (“none of the prior art references cited by Vizio, alone or in combination, discloses [elements] required by the claims”).

**a. The ’051 Patent Does Not Disclose Element 10(c)**

Appellants argue that, although that the ’051 invention is not a telecentric system, the combination of the ’051 and ’060 patents discloses the telecentricity provided in element 10(c). Appellants rely exclusively on Figure 1 of the ’051 patent (pictured below) in arguing that “lens L1” of the ’051 patent somehow

“becomes” telecentric. Br. 63. But Figure 8 of the '051 patent (pictured below), which Appellants ignore, demonstrates why the '051 patent's “triplet lens system” does not support Appellants' argument. Examining both figures clarifies that, as Cross Match's expert testified, “lens L1” is not between the prism and the aperture stop along the same optical path. A200504-05 (Tr. 1835-37); A301998 (figs. 7, 8); A302002 (col.7 ll.64 – col.8 ll.6); A301995 (fig. 1). Specifically, Figure 1's triplet lens (including lens L1) lies along the “photographic optical path” (“Lb”), whereas the prism is on the completely separate “finder optical path” (“Le”). Thus, lens L1 cannot be arranged according to the telecentric geometry recited claim limitation 10(c) of the '993 patent. A261 (claim 10(c)); A200504 (Tr. 1835-37); A301995 (fig. 1); A301998 (fig. 8); A302002 (col.7 l:67 – col.8 l.6); *see also* A103233.



Accordingly, substantial evidence supports the Commission's finding that Appellants failed to meet its burden to show that the '051 patent, alone or in combination, discloses the particular telecentric geometry of claim limitation 10(c).

**b. The '051 Patent Does Not Disclose Element 10(e)**

Appellants argue that lens L2 meets element 10(e) of the '993 patent. Br. 64. But the '051 patent does not disclose "lens L2" exclusively as "a third lens unit for correcting the field curvature of the image contributed by the first and second lens units," as required by claim element 10(e) of the '993 patent. Instead, the '051 patent teaches correcting field curvature using aspheric surfaces that are distributed throughout the six disclosed surfaces ("r1-r6") of the three disclosed lens elements ("L1," L2" and "L3"). A200507 (Tr. 184446); A302001 (col.5 l.36 – col. 7 l.64). The '051 patent is concerned with wide angle lenses in photographic cameras that can benefit from such a design. A301999 (col.1 ll.5-8); A200504 (Tr. 1834). In contrast, the '993 patent addresses correction of field curvature through the third lens unit in a telecentric lens system. A261 (col.10 ll.18-34). Thus, the '051 patent does not disclose element 10(e).

In sum, the '051 patent fails to disclose claim limitations 10(c) or 10(e) of the '993 patent (and, therefore, the combination of the '060 and '051 patents fails to disclose at least these claim elements).

**4. The Combination Of The '060 And '051 Patents Does Not Disclose The Dependent Claims**

Appellants argue that the combination also discloses the limitations of dependent claims 11-12, 15 and 17-18. Br. 65-67. Because, for the reasons discussed, the combination does not disclose every element of claim 10 of the '993 patent, the combination also does not disclose these dependent claims. *See Ortho-McNeil Pharm.*, 520 F.3d at 1365 (“But if claim 1 is not obvious then claims 6-8 cannot be obvious because they all depend from a nonobvious claim.”). Further, even if this Court rejects the Commission’s non-obviousness findings, a remand would be required to assess secondary considerations. *See* A171 n.17.

\* \* \* \* \*

This Court should affirm the Commission’s finding that the '993 patent is non-obvious for at least three independent reasons: (1) the record contains substantial evidence to support the Commission’s finding that the '060 patent does not disclose the telecentric geometry required by element 10(c) of the '993 patent; (2) the record contains substantial evidence to support the Commission’s finding that a skilled practitioner would not have been motivated to combine the '060 and '051 patents; and (3) even if there were some reason or motivation to combine the references, the '051 patent does not disclose claim limitations 10(c) or (e) and thus Appellants’ sole proposed combination fails.


### CONCLUSION

For the foregoing reasons, this Court should affirm the Commission's rulings as to the '344 and '993 patents.

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Respectfully submitted,

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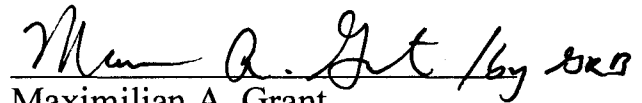
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### CERTIFICATE OF SERVICE

I hereby certify that on August 20, 2012, I caused twelve (12) copies of the Nonconfidential Version of the **BRIEF FOR INTERVENOR** and five (5) copies of the Nonconfidential Version to be delivered to Mr. Jan Horbaly, Clerk, United States Court of Appeals for the Federal Circuit, 717 Madison Place, NW, Room 401, Washington, DC 20439, and two (2) copies of the briefs to be served via FedEx upon the following:

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**CERTIFICATE OF COMPLIANCE WITH RULE 32**

I hereby certify that this brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B) because this brief contains 13,999 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Fed. Cir. R. 32(b).

I further certify that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) because this brief was prepared using Microsoft Word 2003 in 14-point Times New Roman font.

  
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**DECLARATION OF AUTHORITY PURSUANT TO  
FEDERAL CIRCUIT RULE 47.3**

Pursuant to Rule 47.3(d) of the Rules of the United States Court of Appeals for the Federal Circuit, I, Gabriel K. Bell of Latham & Watkins, LLP, hereby swear under penalty of perjury pursuant to 28 U.S.C. § 1746 that I have the actual authority of Maximilian A. Grant of Latham & Watkins LLP, counsel to Cross Match Technologies, Inc., to sign the foregoing Brief for Intervenor.

Executed: August 20, 2012

  
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